

METHODS OF SAMPLING AND TESTING
MT 421-04
METHOD OF SAMPLING CONSTRUCTION FABRIC

1 Scope:

- 1.1** This method covers the sampling of woven fabric, non-woven fabric and impermeable membranes.

2 Description:

- 2.1** Construction fabrics consist only of long chain polymeric filaments such as polypropylene, polyethylene, polyamide, polyester or polyvinylidene-chloride formed into a stable network to insure that the filaments or yarns maintain their relative position to each other.

- 2.1.1** *Impermeable membranes* - used as trench liners or pond liners are similarly manufactured but are also treated to resist water intrusion. Membranes may be formed in uniform sheets with closed cells or formed in treated layers, one layer being impermeable and the other for reinforcement.

3 Sample:

- 3.1** Prior to installation of the fabric the following requirements are required to insure proper selection of fabric for each type of application:

- 3.1.1** The contractor shall submit to the engineer two copies of a manufacturer's certificate of compliance signed by a legally authorized official of the manufacturer and notarized. The certification shall represent physical and chemical test results that were performed on a representative lot of material being used by the department.

- 3.1.2** In addition to certifications, a sample for Acceptance testing is required. A sample fabric-test check list is attached.

- 3.1.3** All sampling of construction fabrics or membranes will be done at the project and witnessed by the Engineer for each type of application, i.e., drainage (light, heavy), erosion control (CL I, CL II & III), separation/ stabilization (medium, high), sediment control, paving and geomembranes. Samples with certifications will be submitted to the Materials Bureau for testing.

- 3.1.4** The size of sample for each application will be a minimum 1.5 foot wide strip cut across the full roll taken from a wrap of fabric not exposed to sunlight or abrasion (see Note 1).

- 3.1.5** Frequency of sampling shall be one sample for every 10,000 square yards (8,000 m²) of application.

- 3.1.5.1** Each new roll used will be checked for variance of lot number and then, if necessary, resampled and submitted to the Materials Bureau for testing. (See Note 2)

- 3.1.5.2** The direction of roll must be identified in felt marker on the sample.

Note 1 - The sample must be cut so that the cut edge is perpendicular to the roll (machine) direction. It is important to identify the roll direction on the sample, as the direction of failure in the fabric must be identified.

Note 2 - The sample shall be labeled with the manufacturer's lot number and identification of fabric type, grade or product name, date of sampling, project number and sample number. Also, during shipping and storing, the fabric must be protected from direct sunlight, ultra-violet radiation, temperatures greater than 60°C (140°F), mud, dirt or any other foreign debris.

4 Specifications:

- 4.1** For basis of acceptance and testing requirements refer to the Standard Specifications for Road and Bridge Construction. Since the Materials Bureau has a strict acceptance policy, proper sampling and correct submittal is essential.